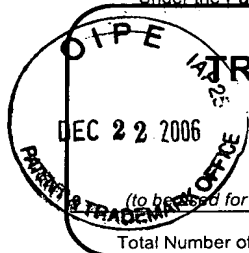


Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL
FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

27

Application Number

10/783,107

Filing Date

02/20/2004

First Named Inventor

M. Shimodaira et al.

Art Unit

1771

Examiner Name

E. Cole

Attorney Docket Number

KIN98USA

ENCLOSURES (Check all that apply)

☐

Fee Transmittal Form

☐

Fee Attached

☐

Amendment/Reply

☐

After Final

☐

Affidavits/declaration(s)

☐

Extension of Time Request

☐

Express Abandonment Request

☐

Information Disclosure Statement

☐

Certified Copy of Priority Document(s)

☐Reply to Missing Parts/
Incomplete Application☐Reply to Missing Parts
under 37 CFR 1.52 or 1.53☐

Drawing(s)

☐

Licensing-related Papers

☐

Petition

☐Petition to Convert to a
Provisional Application☐

Power of Attorney, Revocation

☐

Change of Correspondence Address

☐

Terminal Disclaimer

☐

Request for Refund

☐

CD, Number of CD(s) _____

☐ Landscape Table on CD☐

After Allowance Communication to TC

☐Appeal Communication to Board
of Appeals and Interferences☒Appeal Communication to TC
(Appeal Notice, Brief, Reply Brief)☐

Proprietary Information

☐

Status Letter

☐Other Enclosure(s) (please identify
below):

Remarks

AMENDED BRIEF ON APPEAL IN RESPONSE TO A NOTIFICATION OF NON-COMPLIANT
APPEAL BRIEF MAILED ON 11/27/2006

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

Howson & Howson LLP

Signature

Printed name

George A. Smith, Jr.

Date

12/20/2006

Reg. No.

24,442

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature

Typed or printed name

George A. Smith, Jr.

Date

12/20/2006

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application No.: 10/783107
Applicant: M. Shimodaira et al.
Filed: 02/20/2004
TC/A.U.: 1771
Examiner: E.Cole
Docket No.: KIN98USA
Customer No. 00270

Confirmation No: 7687

MAIL STOP Appeal Brief - Patents
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING
UNDER 37 C.F.R. §1.8(a)(1)(ii)
(PATENT)

I certify that this paper is being deposited on the date shown below with the United States Postal Service, with sufficient postage, as first class mail and is addressed to "Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450."

Signed

Date:

George A. Smith
December 20, 2006

AMENDED BRIEF ON APPEAL

Sir:

This amended brief on appeal is being filed in response to a Notification of Non-compliant Appeal Brief mailed on November 27, 2006. The appeal is from the final rejection in the Final Office Action dated April 10, 2006, and a notice of appeal and brief were filed on August 11, 2006 (with an extension) and September 8, 2006, respectively.

All fees in connection with this appeal have been paid. However, the Commissioner is requested to charge any deficiency in any fees due in connection with this appeal to our Deposit Account, No. 08-3040, and to grant any required extension of time.

I. REAL PARTY IN INTEREST

The real party in interest is the inventor's assignee, Ichikawa Co., Ltd., a Japanese corporation, located at 14-15, Hongo 2-chome, Bunkyo-ku, Tokyo, Japan.

II. RELATED APPEALS AND INTERFERENCES

None.

III. STATUS OF CLAIMS

The pending claims are claims 1-16, each of which stands rejected. The applicant appeals the rejection of all of the claims.

IV. STATUS OF AMENDMENTS

There are no outstanding amendments.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The invention as defined in claim 1 is a press felt having a wet paper web contacting surface and a roll contacting surface.¹ The felt comprises a batt 20, a base body 30, and an anti-rewetting layer 40.² The base body and the anti-rewetting layer are both disposed within the batt 20, and preferably spaced from the wet paper web contacting surface (the top surface in FIG. 2). The anti-rewetting layer

¹Paragraph 0008, page 3, lines 11 - 12

²Paragraph 0028, page 5, lines 15-19

40 comprises a non-oriented³ film having openings 44.⁴ These openings have a three-dimensional structure.⁵ Each opening has a wet paper web side end 42a and a roll side end 42b, and each of the ends has an aperture.⁶ As shown in FIG. 3, the aperture of the wet paper web side end of each opening is larger than the aperture of the roll side end thereof.⁷

Independent claim 9 defines the invention in slightly different terms. It does not specify that the base body 30 or the anti-rewetting layer 40 is spaced from the web-contacting surface. On the other hand, it recites that the anti-rewetting layer 40 has first and second sides, the first side being parallel to, and facing toward, the web-contacting surface, and the second side being parallel to, and facing toward, the roll-contacting surface⁸. It further recites openings each being in the form of a tapered⁹, three-dimensional¹⁰ structure protruding¹¹ from the second side of the film.

There are two sets of dependent claims, 2-8 and 10-16, which are substantially identically worded, and dependent respectively on claims 1 and 9.

³Paragraph 0035, page 6, lines 19-24

⁴Paragraph 0034, page 6, lines 3-5

⁵Paragraph 0034, page 6, lines 12-16

⁶Paragraph 0034, page 6, lines 15-18

⁷Paragraph 0034, page 6, lines 16-18

⁸FIG. 1

⁹Paragraph 0034, page 6, line 16

¹⁰Paragraph 0034, page 6, lines 14-15

¹¹Paragraph 0034, page 6, line 12

Each of dependent claims 2 and 10 recites that each of the openings referred to in its parent claim is "funnel-shaped and has a tubular portion."¹²

Claims 3, 4, 11 and 12, which are dependent on claims 1, 2, 9 and 10, respectively, recite that the non-oriented film is composed of nylon and has an elongation at break of at least 300%.¹³

Claims 5, 6, 7, 8, 13, 14, 15 and 16, which are dependent on claims 1, 2, 3, 4, 9, 10, 11 and 12, respectively, recite that the film has flat openings in addition to openings having a three-dimensional structure.¹⁴

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of the rejection are as follows:

- (a) Rejection of claims 1 and 5-8 under §102(e) on U.S. Patent Application Publication 2003/0051848 (Watanabe), dated March 20, 2003 and filed September 9, 2002.
- (b) Rejection of claims 2 and 3 under §102(e), or in the alternative on §103(a) on Watanabe.
- (c) Rejection of claims 1, 2, and 5-8 under §103(a) on U.S. Patent 4,446,187 (Eklund) and International Patent Publication No. WO 03/029558 (WO '558).

¹²FIG. 6(A); paragraph 0009, page 3, lines 20-21 and paragraph 0060, page 12, lines 1-4

¹³Paragraph 0010, page 3, lines 22-23, and paragraph 0039, page 7, lines 9-12

¹⁴Paragraph 0011, page 3, lines 24-26, and paragraph 0058, page 11, lines 17-20

- (d) Rejection of claims 3 and 4 under §103(a) over Eklund, WO'558, and U.S. Patent 5,071,697 (Gulya).
- (e) Rejection of claims 9 and 10 under §103(a) on U.S. patent 6,159,880 (Schiel) in view of WO '558.
- (f) Rejection of claims 11 and 12 under §103(a) on Schiel in view of WO '558, and Gulya
- (g) Rejection of claims 13-16 under §103(a) on Schiel in view of WO '558, and Eklund

VII. ARGUMENT

The invention

In a papermaking operation, a wet paper web, with press felts on both sides, is moved between a pair of opposed rollers. Water, squeezed from the web by the rollers, is absorbed by the press felts.

A press felt according to the invention is illustrated in Figures 2 and 3, reproduced below.

FIG. 2

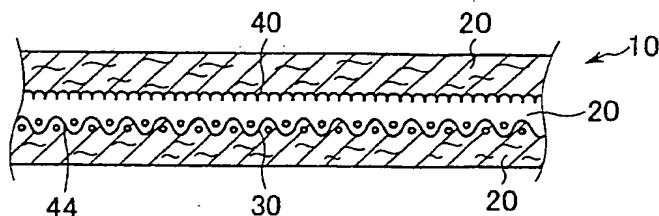
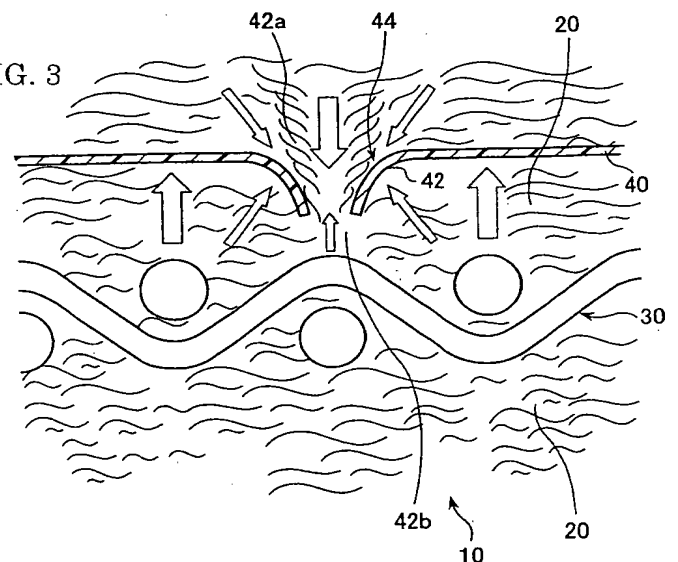


FIG. 3



The felt comprises a batt 20, a base body 30, and an anti-rewetting layer 40.¹⁵ The base body and the anti-rewetting layer are both disposed within the batt 20, and preferably spaced from the wet paper web contacting surface (the top surface in FIG. 2). The anti-rewetting layer 40 comprises a film having openings 44, which are formed by perforation of the film by needle punching of the felt.¹⁶ These openings have a three-dimensional structure. That is, the openings have walls 42 that protrude toward one side of the layer 40.¹⁷ Each opening has a wet paper web side end 42a and a roll side end 42b, and each of the ends has an aperture. As shown in FIG. 3, the aperture of the wet paper web side end of each opening is larger than the aperture of the roll side end thereof.¹⁸ Therefore, the openings have a tapered, three-dimensional, structure. The configuration of the apertures impedes the flow of water absorbed in the portion of the batt on the roll side of the anti-rewetting layer toward the wet web side of the felt.¹⁹

The film is a non-oriented film, which, as explained in the specification, allows for minor amounts of orientation, for example minor orientation resulting from the film's own weight in the manufacturing process.²⁰ The use of a non-oriented film results in several advantages. First, the non-oriented film is resistant to tearing in the needle punching process.²¹ Second, because the non-oriented film is resistant

¹⁵Paragraph 0028, page 5, lines 15-19

¹⁶Paragraph 0034, page 6, lines 10-12

¹⁷Paragraph 0034, page 6, lines 12-16

¹⁸Paragraph 0034, page 6, lines 16-18

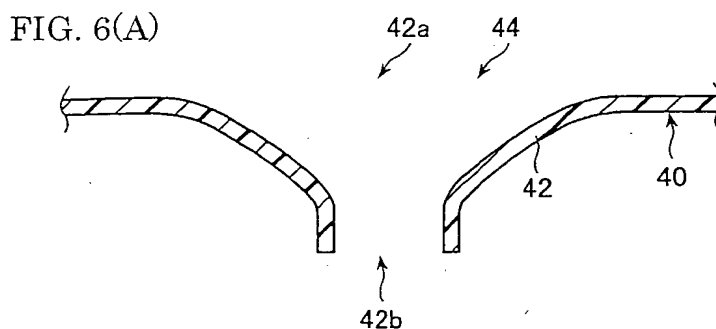
¹⁹Paragraph 0043, page 8, lines 2-8

²⁰Paragraph 0035, page 6, lines 19-24

²¹Paragraph 0054, page 10, lines 2-6.

to tearing, the needle punching density can be increased, and adhesion of the batt layers to the film can be increased.²² Third, the non-oriented film produces a felt having excellent anti-rewetting properties because it stretches to produce long three-dimensional openings, and because the roll-side ends of the openings shrink when the needles are withdrawn.²³

In a preferred version of the anti-rewetting layer, the openings are funnel-shaped, and have tubular portions, as shown in FIG. 6(A)²⁴. This shape effectively resists flow of water through the opening 42 from the roll side end 42b toward the web side end 42a.²⁵



A preferred version of the anti-rewetting layer is a non-oriented film composed of nylon.²⁶ Nylon is preferred as a material of the anti-rewetting layer because it has elongation properties that are compatible with the nylon frequently used as the material of the batt and the base body.²⁷ The nylon

²²Paragraph 0054, page 10, lines 6-8

²³Paragraph 0055, page 10, lines 10-19

²⁴Paragraph 0009, page 3, lines 20-21

²⁵Paragraph 0060, page 11, line 21 - page 12, line 4

²⁶paragraph 0010, page 3, lines 22-23.

²⁷Paragraph 0038, page 7, lines 4-8.

preferably has an elongation at break of at least 300% to avoid tearing.²⁸

In accordance with one aspect of the invention, flat openings are provided in addition to the three-dimensional openings for improved water permeability.²⁹

(a) The rejection of claims 1 and 5-8 under §102(e) on Watanabe is in reality at most an obviousness rejection and is precluded by the Applicants' showing of common ownership under section 103(c)

In this anticipation rejection, the Examiner asserts that Watanabe teaches that biaxially oriented films are suitable, but that Watanabe "also generically teaches the use of films as the wetting prevention layer." According to the Examiner, by teaching that a biaxially oriented film prevents splitting of the film during the needling process, Watanabe implicitly teaches that using unoriented films is "less preferred but known." The Examiner also relies on the fact that Watanabe's claims are not limited to an oriented film.

A rejection under section 103 on Watanabe was withdrawn because Watanabe is a 102(e) reference³⁰, and the Applicant made the appropriate showing of common ownership under section 103(c). The exception under section 103(c), of course does not apply in the case of an anticipation under section 102(e),

²⁸Paragraph 0039, page 7, lines 9-18

²⁹Paragraph 0011, page 3, lines 24-26 and paragraph 0058, page 11, lines 17-22

³⁰The citation of Watanabe as a reference is possible only because it falls within the language of section 102(e). That is, it is "an application for patent, published under section 122(b), by another, filed in the United States before [the present applicant's filing date, which, in the absence of evidence to the contrary, is presumed to be the date of] the invention by the applicant for patent. . . ."

and therefore, to maintain a rejection based on Watanabe, it is essential for the Examiner to establish anticipation rather than obviousness. The first issue, therefore, is whether the rejection on Watanabe is based on anticipation or based on obviousness. It is the Applicant's position that the rejection is, at most, an obviousness rejection disguised as anticipation.

Lack of novelty, or "anticipation," under section 102 "can only be established by a single prior art reference which discloses each and every element of the claimed invention." Structural Rubber Products Co. v. Park Rubber Co., 749 F.2d 707, 715, 223 U.S.P.Q. 1264, 1270 (Fed. Cir. 1984). In Connell v. Sears Roebuck & Co., 722 F.2d 1542, 1548, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983), Chief Judge Markey strongly criticized the use of section 102 as a basis for holding a claim unpatentable in a situation where all the elements of the claim were not disclosed in a single reference. The relevant portion of his remarks concerning a trial court's opinion are as follows:

The opinion says anticipation may be shown by less than "complete anticipation" if one of ordinary skill may in reliance on the prior art "complete the work required for the invention", and that "it is sufficient for an anticipation 'if the general aspects are the same and the differences in minor matters is only such as would suggest itself to one of ordinary skill in the art.'" Those statements relate to obviousness, not anticipation. Anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim. . . . A prior art disclosure that "almost" meets that standard may render the claim invalid under §103; it does not "anticipate."

The Court of Appeals for the Federal Circuit stated the rule in slightly different terms in Verdegaal Brothers, Inc. v. Union Oil Company of California, 814 F. 2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference.

There is no express disclosure of an unoriented film in Watanabe, nor is it "inherently described." Inherent description, or "inherency," exists where missing descriptive matter is necessarily present in the thing described in the reference. In re Robertson, 169 F. 3d 743, 49 U.S.P.Q. 2d 1949 (Fed. Cir. 1999). Applying the principles set forth in Robertson, there is clearly no inherent disclosure of an unoriented film in Watanabe.

A fair reading of the Watanabe disclosure reveals that Watanabe neither explicitly nor implicitly describes using an unoriented film as a rewetting prevention layer.

The Examiner asserts that Watanabe's preference for biaxially oriented film implicitly teaches the Applicants' claimed use of unoriented films as a "less preferred, but known" alternative. The Examiner relies on Watanabe's disclosure of a "biaxially oriented film" that is "suitable for use as a rewetting prevention layer" (Watanabe paragraph 0035), and on Watanabe's statement that, "when a biaxially oriented film is used. . . the rewetting prevention layer 40 and the opening rim 42. . . may be prevented from being split. . ." (Watanabe paragraph 0049). The inference that Watanabe implicitly teaches the use of an unoriented film as a rewetting prevention layer is odds with the examples described in Watanabe's paragraphs 0068-0070 and 0072-0073. These examples explicitly describe suitable alternatives to biaxially oriented nylon film for a rewetting prevention layer, but none of the alternatives is a "non-oriented film," as recited in Applicant's claim 1. Specifically, paragraphs 0068-0070 describe Examples 1, 2 and 3, each of which uses the preferred embodiment, a "biaxially oriented film made of nylon." Paragraph 0071 describes a comparative example having

no rewetting layer at all. Paragraph 0072 on the other hand describes, a press felt in which "a rewetting prevention layer 40 was composed of an axial extension film made of nylon," in other words, a uniaxially oriented film. Paragraph 0073 describes a press felt in which "the rewetting prevention layer 40 was a spun bond layer made of nylon", i.e., a layer that is composed of multiple filaments bonded together. Thus, the alternatives described in Watanabe's examples are: (a) a press felt that has no rewetting prevention layer at all; (b) a press felt having a film that is oriented; and (c) a press felt in which the rewetting prevention layer is not a film.

In summary, the only instances in which Watanabe describes a felt without also making reference to biaxial orientation or to axial extension are those in which there is no rewetting prevention layer at all, or in which the rewetting prevention layer is a spun bond layer rather than a film. Watanabe's description of number of examples, none of which describes the use of a non-oriented film³¹, and the fact that the Watanabe specification contains no mention of non-oriented film, compel the conclusion Watanabe's disclosure is not a 102(e) anticipation.

Additionally, the Examiner's assertion that a disclosure of "biaxial orientation" implicitly, or inherently, discloses "non-orientation" is based on the assumption that the only alternative to biaxial orientation is non-orientation. Another alternative, of course, is uniaxial orientation. In establishing inherent disclosure, "The mere fact that a certain thing may result from a given set of circumstances is not sufficient." In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). Instead, the Examiner,

³¹The listing of specific materials none of which is the material at issue, strongly suggests that the author did not intend to include the latter. "*Expressio unius est exclusio alterius*."

who bears the initial burden of establishing inherency, must "provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Clearly, the Examiner has failed to establish that the unoriented film as claimed by the Applicants necessarily flows from the teachings in Watanabe.

The Examiner also posits that, because the claims in Watanabe's pre-grant publication do not specify orientation or lack thereof, they amount to a disclosure not only of biaxially oriented films, but also both uniaxially oriented and unoriented films. The Examiner's position, therefore, appears to be that, because Watanabe's claims are not limited by film orientation, Watanabe discloses a genus, namely, a press felt having a film with three-dimensional openings, and that the disclosure of the genus amounts to a disclosure of each of the species within the genus. Since a patent claim is entitled to be as broad as the prior art will permit, it does not follow logically from the fact that Watanabe's claims are not limited to a particular film orientation, that Watanabe's publication discloses a press felt containing an unoriented film.

(b) The rejection of claims 2 and 3 under section 102(e) or alternatively under section 103(a) should be reversed for the same reasons as advanced in part (a) above.

(b)(1). Argument for claims 2 and 3

As pointed out above, section 102(e) is not applicable unless all of the elements of the claimed invention are disclosed in a single prior art reference. Watanabe lacks a teaching of unoriented film. Section 103(a) is not applicable because the applicant made a showing of common ownership under

section 103(c). Thus the rejection of claims 2 and 3, which are dependent on claim 1, should be reversed for the same reasons as advanced in part (a), which is incorporated by reference into this section.

(b)(2). Separate argument for claim 3

Claim 3 recites that the film has an elongation at break of at least 300%. The Examiner has acknowledged that Watanabe does not disclose the claimed elongation at break but concludes that, since Watanabe discloses the same structure and materials, the film would have the same elongation at break. The problem with this conclusion is that Watanabe does not disclose the same material. Specifically, as pointed out in parts (a) and (b)(1), Watanabe does not disclose an unoriented film. Therefore, it cannot be presumed that Watanabe's film would have the claimed elongation, and the rejection of claim 3 under §102(e) cannot be sustained for this additional reason.

(c) The rejection of claims 1,2 and 5-8 under §103(a) on Eklund and WO '558 should not be sustained because combining the teachings of Eklund and WO '558 would render the dewatering belt of Eklund unsatisfactory for its intended purpose.

This rejection depends on Eklund for a disclosure of a re-wetting prevention layer having holes or channels that can have a funnel shape. The rejection assumes that Eklund's layer is not oriented. The Examiner acknowledges the Eklund's layer not disposed within the batt layer, and depends on WO 03/029558 for a disclosure of a re-wetting prevention layer disposed within a batt layer in order to isolate the layer

from the paper making surface to prevent its interference with the paper forming surface. According to the Examiner:

"it would have been obvious. . . to have situated the anti rewetting layer of Eklund within the batt in order to avoid having the film layer interfere with the paper making process as taught by WO '558."

Specifically with respect to claims 5 and 6, the Examiner depends on Eklund for a disclosure of openings that "can have any configuration." According to the Examiner, "it would have been obvious. . . to have selected the shape and depth of the openings through the process of routine experimentation as taught by Eklund in order to form a press felt having the optimum rewetting prevention characteristics."

(c)(1). Argument concerning claims 1,2 and 5-8

Eklund describes a dewatering belt having a laser-perforated "foil" of substantially liquid-impermeable thermoplastic material on the outside. Eklund explains that, in a press felt, the fiber batt has a certain degree of unevenness which is amplified by needling. (Eklund, col. 1, lines 63-66) Eklund therefore locates the laser-perforated layer on the outside of the felt. Eklund explains that, "To produce the best paper quality possible it is necessary that the side of the press felt facing the paper web is as even and finely porous as possible . . ." (Eklund, col. 1, line 66 - col. 2, line 1).

WO '558 is relied upon for its teaching that the anti-rewetting layer can be situated within the batt in order to avoid having the film layer interfere with the papermaking process. Applying the teachings of WO '558 of keeping the perforated film layer away from the paper web, as the Examiner suggests, would render Eklund's sheet unsuitable for Eklund's

stated purpose of achieving high paper quality. If the proposed modification would render the prior art invention being modified unsatisfactorily for its intended purpose, then there is no motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Moreover, although the Examiner has not asserted that it would have been obvious to modify WO '558 in view of Eklund, an obviousness rejection taking this approach would not be sustainable. Eklund lacks any teaching of the reasons for the special hole configurations such as those in Eklund's FIGs. 6-8. The holes in Eklund's FIGs. 7 and 8 are oppositely tapered, indicating that the shapes of the holes have nothing to do with rewetting prevention. It can only be concluded that the hole configurations contribute to the quality of the paper being produced, not to the prevention of rewetting. Thus, there is no reason why a person of ordinary skill in the art would be motivated to utilize a film having special hole configurations, such as those shown in Eklund's FIGs. 6-8, in an internally disposed layer as described in WO '558. That is, in terms of the language of the Applicants' claim 1, there is no motivation to provide an anti-rewetting layer "within the batt," and having "a non-oriented film having openings" where the "aperture of the wet paper web side end of each of said openings. . . [is] larger than the aperture of the roll side end thereof."

(c)(2). Separate argument concerning claims 5 and 6.

The Examiner cites Eklund's column 3, lines 39-56 for a teaching that the openings can have "any configuration." The citation appears to be incorrect. However, since the rejection applies to claims 5 and 6, we take this to mean that Eklund teaches that a given sheet can have two or more different kinds of holes. And indeed, at column 6, lines 37-

41, Eklund alludes to the possibility of different hole configurations in different parts of the same sheet.

Eklund, however, does not describe the combination of flat openings and openings having a three-dimensional structure in the same sheet, as defined in claims 5 and 6. Paragraph 0034 in the Applicants' specification effectively defines the "three dimensional" structure as comprising openings having walls that "protrude." These walls contribute to the anti-rewetting performance of the Applicants' film, as explained in paragraph 0042 of the Applicants' specification. Eklund has no disclosure of openings having protruding walls, much less a disclosure of a film in which some of the openings have a three dimensional structure and other openings are flat.

(d) The rejection of claims 3-4 on Eklund, WO '558 and Gulya should not be sustained for the same reasons as advanced for reversal of the rejection of claims 1, 2 and 5-8.

This rejection depends on Eklund and WO '558 as applied to claims 1, 2 and 5-8, and depends on Gulya for a disclosure of nylon as a rewetting preventing layer. According to the Examiner, "it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed a nylon layer instead of polyurethane layer as the rewetting prevention layer of Eklund, motivated by the teaching of Gulya that the two types of films were recognized as equivalents in the art."

The rejection in paragraph 8 of the Final Office action is based on the grounds as the rejection of claims 1, 2 and 5-8 on Eklund and WO '558, Gulya being added for its disclosure of a nylon as a rewetting prevention layer. No separate argument is made for claims 3 and 4. The same reasons as set forth above in part (c)(1) apply to this rejection.

(e) The rejection of claims 9-10 under §103(a) on Schiel in view of WO '558 is based on a misinterpretation of Schiel

This rejection depends on Schiel for a disclosure of a press felt comprising a batt layer 2, a support layer comprising warp and weft threads 3 and 4 and an intermediate layer 12 which may be a film layer. The rejection also depends on WO '558 for a disclosure of incorporating an anti-rewetting layer within the press felt in order to prevent rewetting. According to the Examiner, "it would have been obvious. . . to have employed an anti rewetting layer as the intermediate layer in Schiel, motivated by the expectation that this would prevent rewetting when the press felt of Schiel was used." The Examiner asserts that "Schiel does not disclose that the film is oriented and therefore it is reasonable to presume that it is unoriented."

(e)(1) Argument concerning both of claims 9 and 10

The rejection of claims 9 and 10 in paragraph 9 of the Office action is based on Schiel in view of WO 03/029558. The examiner, noting that Schiel discloses a press felt comprising a batt layer 2, a support layer comprising warp and weft threads 3 and 4, states that the intermediate layer 12 "may be a film layer." The examiner then asserts that needling of layer 12 would result in perforations having the claimed shape, i.e., a "tapered, three-dimensional structure protruding from the second side of the film."

Nowhere in Schiel's specification is there a description of a film with openings having a tapered, three dimensional protruding structure as defined in claim 9. In fact, it is apparent from a full reading of Schiel, that layer 12 is not a film at all. Schiel describes the layer 12 in FIG. 4 as an "intermediary layer 12 between the base layer 1 and top batt layer 2." According to Schiel, at column 6, lines 24-33,

"this intermediary layer 12 can be made of fibers or of foil. Although only three layers are shown in FIG. 4, there may be more layers contained in the felt structure for special requirements. For instance, the base 1 may be composed of two layers and the bat 2 of three or four layers that are made from finest fibers in the top layer and become coarser in the downward direction."

What is particularly significant is that, in the brief description of the drawings, the "intermediary layer" is described as a "bat" (col. 5, line 42). Moreover, in col. 6, at line 26, Schiel says not that the intermediary layer 12 can be a bat or a foil, but rather that "the intermediary layer 12 can be made of fibers or of foil." (emphasis supplied) According to Webster's Third New International Dictionary (1961), a bat (or batt) is "a continuous sheet of cotton or wool fiber prepared for carding or for layering in felt-making" or "a layer of felt as used in making hats." Although a batt in a papermaking felt could be made of foil, since the term "batt" connotes a fibrous structure, in the case of a batt made of foil, the foil itself would need to be chopped or otherwise rendered into a form resembling the fibers of a conventional fiber bat. It follows that the intermediary layer described by Schiel at col. 6, lines 24-33 is a bat made either of fibers or foil, and not a "non-oriented film. . . having openings, each opening being in the form of a tapered, three-dimensional, structure protruding from the second side of the film," as defined in claim 9. Neither Schiel, nor Schiel in combination with WO 03/029558, teach the concept of a felt having an anti-rewetting layer comprising a non-oriented film having tapered, protruding, three-dimensional openings, as defined in claim 9.

(e)(2). Separate argument concerning claim 10

Claim 10 recites that each opening "is funnel-shaped and has a tubular portion." No such structure is described or suggested in Schiel, WO '558 or Gulya.

(f) The rejection of claims 11 and 12 on Schiel, WO '558 and Gulya should not be sustained for the same reasons as advanced for reversal of the rejection of claims 9 and 10.

This rejection depends on Schiel, WO '558 and Gulya as applied to claims 9 and 10. According to the Examiner: "it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed a nylon layer as the rewetting prevention layer of WO '558, motivated by the teaching of Gulya that this type of film was known in the art to be suitable for this purpose."

(f)(1). Argument concerning claim 11

Claim 11 is dependent on claim 9 and its rejection should be reversed for the reasons set forth in part (e)(1)

(f)(2). Separate argument concerning claim 12

Claim 12 is dependent on claim 10, and its rejection should be reversed for the reasons set forth in both part (e)(1) and part (e)(2).

(g) The rejection of claims 13-16 should be reversed because even if the teachings of Schiel, WO '558 and Eklund are combined, the result would not be a press felt with a non-oriented film having both flat openings in addition to openings that have three-dimensional structure.

This rejection depends on Schiel and WO '558 as applied to claims 9 -12, and on Eklund for a disclosure that "teaches that the openings can have any configuration." According to the Examiner, "it would have been obvious. . .to have selected the shape and depth of the openings through the process of routine experimentation as taught by Eklund in order to form a press felt having the optimum rewetting prevention characteristics.

(g)(1) Argument concerning claims 13-16

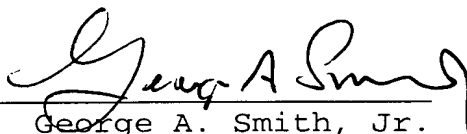
Argument (e) explains how the Examiner erred in rejecting claim 9, on which claims 13-16 depend. In addition, as the Examiner notes, neither Schiel nor WO '558 teaches inclusion of both flat apertures and protuberances on a rewetting prevention layer. The Examiner refers to Eklund for a teaching that the openings can have any configuration. For the reasons presented above in argument (c)(2), these three references, whether taken individually or in combination fail to teach the concept of combining flat openings with three dimensional openings.

(h) Conclusion

For the foregoing reasons, it is submitted that all of the rejections have been made in error and should be reversed.

Respectfully submitted,
HOWSON & HOWSON

By



George A. Smith, Jr.
Reg. No. 24,442
Howson & Howson LLP
Suite 210
501 Office Center Drive
Fort Washington, PA 19034
Telephone: 215 540 9200
Facsimile: 215 540 5818

VIII. CLAIMS APPENDIX

1(previously presented). A press felt for papermaking, having a wet paper web contacting surface and a roll contacting surface, said felt comprising a batt, a base body, and an anti-rewetting layer, the base body and the anti-rewetting layer both being disposed within the batt and spaced from the wet paper web contacting surface, and the anti-rewetting layer comprising a non-oriented film having openings, said openings having a three-dimensional structure, each opening having a wet paper web side end and a roll side end, each of said ends having an aperture, and the aperture of the wet paper web side end of each said opening being larger than the aperture of the roll side end thereof.

2(original). A press felt for papermaking as claimed in claim 1, wherein each said opening is funnel-shaped and has a tubular portion.

3(original). A press felt for papermaking as claimed in claim 1 wherein said non-oriented film is composed of nylon, and has an elongation at break of at least 300%.

4(original). A press felt for papermaking as claimed in claim 2 wherein said non-oriented film is composed of nylon, and has an elongation at break of at least 300%.

5(previously presented). A press felt for papermaking as claimed in claim 1, in which said film further has flat openings in addition to said openings having a three-dimensional structure.

6 (previously presented). A press felt for papermaking as claimed in claim 2, in which said film further has flat openings in addition to said openings having a three-dimensional structure.

7 (previously presented). A press felt for papermaking as claimed in claim 3, in which said film further has flat openings in addition to said openings having a three-dimensional structure.

8 (previously presented). A press felt for papermaking as claimed in claim 4, in which said film further has flat openings in addition to said openings having a three-dimensional structure.

9 (previously presented). A press felt for papermaking, having a wet paper web contacting surface and a roll contacting surface, said felt comprising a batt, a base body, and an anti-rewetting layer, the base body and the anti-rewetting layer both being disposed within the batt, and the anti-rewetting layer comprising a non-oriented film having a first side substantially parallel to, and facing toward, the wet paper web contacting surface, and having a second side, substantially parallel to, and facing toward, the roll contacting surface, the film having openings, each opening being in the form of a tapered, three-dimensional, structure protruding from the second side of the film toward the roll-contacting surface, each opening having a wet paper web side end and a roll side end, each of said ends having an aperture, and the aperture of the wet paper web side end of each said opening being larger than the aperture of the roll side end thereof.

10(previously presented). A press felt for papermaking as claimed in claim 9, wherein each said opening is funnel-shaped and has a tubular portion.

11(previously presented). A press felt for papermaking as claimed in claim 9 wherein said non-oriented film is composed of nylon, and has an elongation at break of at least 300%.

12(previously presented). A press felt for papermaking as claimed in claim 10 wherein said non-oriented film is composed of nylon, and has an elongation at break of at least 300%.

13(previously presented). A press felt for papermaking as claimed in claim 9, in which said film further has flat openings in addition to said openings having a three-dimensional structure.

14(previously presented). A press felt for papermaking as claimed in claim 10, in which said film further has flat openings in addition to said openings having a three-dimensional structure.

15(previously presented). A press felt for papermaking as claimed in claim 11, in which said film further has flat openings in addition to said openings having a three-dimensional structure.

16(previously presented). A press felt for papermaking as claimed in claim 12, in which said film further has flat openings in addition to said openings having a three-dimensional structure.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX
None